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The New Zealand Beekeepers' Journal.

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ASSOCIATION OF N.Z.

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E. A. Far

The New Zealand Beekeepers' Journal

The Official Organ of the
National Beekeepers' Association of N.Z.

No. 38 5/- PER ANNUM.

EDITORIAL.

The Editor desires to express his thanks to all those ladies and gentlemen who have written so nicely about his appointment to that position, and he feels that with all the goodwill expressed behind him he is going to "fill the bill" successfully. He again asks for your generous help in the way of articles, clippings of interest, &c.; also for criticism, as without criticism he will not know or see, perhaps, that he is not keeping up the standard that has been set.

After being in the grading store, and seeing the amount of extra time it takes, also the care necessary to prevent breaking the lids of the cases that are wired and stapled, instead of being strapped with iron and nailed, we are convinced that it would be a wise thing to bar the use of wire and staples, particularly when some men use ordinary fencing wire and staples, which split the timber badly, and make it a hopeless job to get the lid off in one piece. If the cases were to be shipped without being opened there would not be a better binding than wire and staples—that is, provided one used wire about the thickness of an inch nail and five-eighth staples; but as they must be opened, it spoils the job and the case, and many suppliers have to bear an extra expense to put this right, which would be avoided if strapping were used. There is also a right and a wrong way in putting on the strapping. The right way is to have the two ends come together on the lid, not somewhere down the sides. A little care exercised on this job will save you shillings on your H.P.A. account.

Having an hour to spend idly whilst in Auckland recently, we went to have a look round the auction marts, and very soon we saw some familiar tins. Yes, there it was, all the way from Waikaia, Southland—eighteen 10-lb. tins and one case of 2-lb. tins. It seems a most extraordinary thing that, in spite of the H.P.A. wanting honey and offering a fair price, and the merchants offering tempting prices, it should be necessary for any beekeeper to have to resort to the auction mart to get rid of his output, withal to send it from one end of the Dominion to the other. The only redeeming feature about the matter was the price, which was 7d. per lb. A few years ago auction mart honey could be bought for about 2d. This particular honey was a very good sample, and should never have been in an auction room. We suggest the H.P.A. take a trip round Southland and see what is doing there.

As the time for raising queens will be with us shortly, we invite short, concise articles on the systems used. If we could make the September number a queen-rearing one, we feel sure it would be helpful to everybody. Will you help us?

We should appreciate the services of gentlemen in various parts of the Dominion who would send us every month a few notes on what is happening there in the beekeeping world. The Secretaries of the different Associations would perhaps care to do it, but we don't want to increase their work unless they choose. Who is willing?

Owing to our list of subscribers increasing in size, we cut the June issue very fine indeed, so much so that we were short of about a dozen copies. If any of our friends do not file their copies and have finished with the June issue, we should be very glad if they would forward them to the Editor.

There was some confusion on the question of class and grade of honey when the matter of grading was under discussion at the Conference, as is evident by Mr. Earp's reply to a question as to whether Class C could grade 100 points, and he replied in the affirmative. Now, there is not an alphabetical list of classes; the classes are simply the colours, of which there are four—White, Light Amber, Medium Amber, and Dark—and in all these it is possible to get either A, B, C, or D grade. It is clearly impossible for Grade C to score 100 points, because 87½ is the highest possible; anything higher puts the honey into grade B. One part of the Editor's crop this year was in the fourth class, but it graded B, and it would be wrong to state that class D graded B; but class four grading B is quite reasonable, and possible.

There are one or two errors in the report of the Conference. Page 618:—Officers elected for H.P.A.: Instead of R. H. Nelson, read H. C. Wedde, and the two following resolutions were part of the Conference proceedings, not the H.P.A.

Mr. R. H. Nelson desires it to be understood that he is in no way interested from a business point of view in the Benton capping melter described. He read the paper for Mr. Benton, who was unable to do it owing to an accident. Mr. Benton has written us on this machine, as the description given was not exactly correct. His letter appears elsewhere.

In a letter from the father of one of our subscribers who is now at the front, he stated how glad he would be when the war was over and his son would be back amongst his beloved bees. It was with feelings of deep regret that on the following day we saw his son's name in the casualty list as wounded and sent to hospital. He was a personal friend of the Editor's, and we desire to express our sympathy to his parent, Mr. J. Honore, of Manaia, Taranaki, with the hopes that good news will soon come along.

In connection with the above, we think we ought to have a space allotted in the Journal for a Roll of Honour. Many others have left their "beloved bees" and gone into the awful atmosphere of modern war. Some have made the supreme sacrifice; others have returned maimed; some are still fighting; others are training, and never a mention of one of them in our Journal. We consider that our industry is the most

fraternal of all, and we think we are not living up to our belief by practically ignoring these admirable brethren; and, although late, we ask all our readers to send the names of beekeepers who are or have been in khaki for active service, that we may at least make mention of their names in our Journal.

Did we not say we had been promised the services of an excellent man to write our "Beekeeping for Beginners" articles? Just read the first instalment very carefully, and see if he hasn't "made good." You can see the experience of the writer in every line.

Beekeeping for Beginners.

MONTHLY INSTRUCTIONS.—AUGUST.

[As these Instructions conform to the seasons in the Auckland Districts, an allowance must be made for difference in latitude North and South. Average bee-seasons in the extreme North are four weeks earlier, and in Southland three weeks later.—Ed.]

CONDITION OF COLONIES.

Now is the time to detect any weakness or defect in colonies. Those in good condition will be showing signs of increased activity, as breeding will be developing at an increased rate every day, and about the middle of the month, or shortly after, according to the weather, the first of the season's young bees will be flying. On the other hand, colonies that are not up to the mark through some defect may readily be detected without opening their hives in the first place. There will be a noticeable listlessness about the bees at the entrances, and fewer flying compared with other colonies in normal condition. These should be examined on the first suitable day. If breeding is not proceeding satisfactorily, which is pretty certain to be the case, it will be due to either a defective queen, insufficient food, or queenlessness. A colony may be weakened by disease or from some other cause which would check breeding, but in any case, where brood rearing is not going on as it should be, it should be dealt with on the first opportunity.

QUEENLESSNESS.

The loss of queens during the winter and early spring frequently occurs with beginners during the first year or two of their beekeeping career, the usual cause being death from old age. Queens in most parts of Australasia, where breeding goes on for the greater part of the year, rapidly decline after their second season; therefore it has been found unprofitable as a rule to keep them over that time. Until a person has gained some experience in these matters, he is likely to have aged queens in some of his colonies, and when they begin to decline they rarely live through the following winter, hence queenless colonies are the result at this time. The best course to pursue with abnormally weak and queenless colonies at any time from now forward is to unite them with others. The bees are then saved to do useful work while they live, otherwise they would die out uselessly.

DISEASE.

Now is the best time for beginners to detect disease—foul-brood. When examining brood combs, always look for abnormal cell-cappings—that is, those which appear different to others where brood may be emerging. A healthy brood cell-capping is convex in shape, and of bright appearance, whereas a diseased cell-capping is convex, dull, darker, and may be perforated. Soon after the death of the diseased pupa, the tissue breaks down into a glue-like substance, when it can be drawn out for some distance from the cell on a splinter of wood. Later this substance dries into a dark scaly mass on the lower side of the cell. If any such cells are discovered, make a note of the hive for treatment later on; but in case the disease has already got a big hold, and diseased cells are found in several combs, the best plan is to burn the contents of the hive and to thoroughly disinfect the latter with carbolic acid, or singe the inside by fire.

UNITING.

Clean weak and queenless colonies, as soon as discovered, should be united with others, which may be done with the least trouble in the following manner:—After deciding upon the two to be united, place a queen excluder over the frames of the one the weak colony is to be united to, and simply place the other body of hive containing the bees and frames above the excluder, and close down. The excluder is to keep the bees apart temporarily until both lots attain the same odour. I have never known the bees to fight when united in this manner, but should they attempt to do so blow a few puffs of pungent smoke into the hive. In the absence of a queen excluder a sheet of wire cloth will do, or a sheet of stiff brown paper punctured with plenty of nail holes will answer the same purpose. Remove the obstruction in two days.

Keep breeding going steadily by providing or seeing there is ample food in the hives, and that the latter are kept snug with dry mats over the frames. Keep the hives clear of long grass and weeds, and allow of a good width of entrance for ventilation, and so avoid mouldy combs.

BEES.

ITEMS OF INTEREST.

Influence of Nurse Bees on the Brood.—M. Bourgeois, writing in "Revue Francaise d'Apiculture," says that at present only hypothetical ideas prevail respecting the development of sex in bees, but, on the other hand, experience has shown that the nurses have a prevailing influence on the brood which they rear. Thus, a very industrious colony will raise excellent queens, even with brood derived from a lazy one. An indolent colony, on the other hand, will never rear good queens, even with the choicest brood. The food and the nurses have more influence on the value of the progeny than the parentage of the egg. This should be particularly remembered, as it forms

the foundation of the rational rearing of queens and the production of vigorous swarms.—"British Bee Journal."

[This is very interesting, and many of us no doubt were quite happy as to the quality of the queen we got our eggs from for queen-raising, which, according to the writer, might be absolutely neutralised by not taking care to have them raised under the best conditions—that is, an industrious colony. Personally, we have rather let the industrious colonies who are "delivering the goods" satisfactorily "keep on doing it," but on coming to a populous hive that did not seem to be working so strenuously have given those bees the job of raising queens, and thereby raising indolent queens, if the writer is correct in what he says. Interesting subject raising queens, isn't it? Tell us your experience.—Ed.]

Utilisation of Propolis.—M. Denis, writing in the "Bulletin de la Societe d'Apiculture de la Somme," says that it is seldom that the use of propolis is mentioned as a remedial agent in certain cases. He says that a beekeeper reports the following facts, which may not be credited, but which a certain number will at once try. Our friend had soft corns, which caused him excruciating pain. Having in vain tried the plasters sold as infallible remedies, he ultimately cured himself with the propolis. Here is the recipe:—Soften the propolis by kneading it between the fingers, then spread it on a thin piece of leather, warm the plaster in the flame of a candle, and apply it to the place affected. A radical cure results in from one to two weeks.

If you have an abscess, there is no better remedy than a honey plaster. Mix a teaspoonful of honey with the yolk of an egg, and add two spoonfuls of rye flour. Spread this ointment on a piece of linen and apply to the abscess. The matter is discharged gradually, and the pain diminishes. It is prudent to renew the plaster every two hours. Try it, and you will see the result.—"British Bee Journal."

[If any of you want to start doctoring your friends, or any of our readers have a soft corn or an abscess waiting to be cured, here's the opportunity, and let us know the result; only please note we take no responsibility in the event of a premature "burst!"—Ed.]

Carniolan Bees.—We do not now hear so much of these bees as we did some years ago. The following article on them from the "American Bee Journal," by Frank Rojina, University Farm, St. Paul, Minn., will perhaps be of interest:—

"Nearly three years ago I left Carniola, a State in Austria of 3,886 square miles, with 525,000 population, to study American beekeeping at the University State Farm, under the supervision of Prof. Francis Jager. Carniola is a country with mountains rising to a height of 12,000 feet, the sides of which are covered with fir and deciduous leaf-bearing trees. For over 300 years the inhabitants (Slovenes or Slavs) have given

many thousands of colonies, honey and wax as payment for taxes. From that we can see how educated were our grandfathers, by steady working with the Carniolan bees. In 1769 Empress Maria Teresa, of Austria-Hungary, took up bee-culture, and appointed a Carniolan, Anton Jansa, professor of beekeeping in Vienna, making an appropriation of 600 dollars a year that he might spend his entire time with the bees.

"Jansa lectured at the public gardens in Vienna, also travelling around as an extension man, giving methods of beekeeping as practised in his native State. It was something new to the people of Vienna to see a Carniolan hive, as they were using only straw hives. The Vienna township had used his methods and hives only three years when the production of honey and wax in two months' time was valued at 10,500 dollars, as against 2,000 dollars or 3,000 dollars before.

"Jansa himself, when he started in 1770, had only 16 colonies, and in two years' time increased his apiary to 300 colonies. During this time he discovered parthenogenesis and what we call the McEvoy foul-brood treatment, writing many articles for publication of this discovery. Not until a long time afterwards did the professors and people in Vienna believe in him. He discovered the drone was the male bee, fertilising the queen while on the wing, and also that an unfertilised queen is no better than an ordinary worker-bee, laying only drones, while the fertilised queen lays two kinds of eggs in all the cells, unfertilised in the drone cells and the fertilised in the worker cells.

"Jansa published a book entitled 'Swarming,' which was of great benefit. Later his second book, nearly completed at his death, was published by one of his students. It is entitled 'Complete Information on Bee-keeping.'

"It is too bad that Anton Jansa is not known among the American beekeepers. The Austrian beekeepers call him the first and Dzierzon the second great man in bee history.

"All the beekeepers in Carniola have bee-houses, about 60 feet by 20 feet, and about 12 feet high, built of logs with brick foundations, the home of their bees for summer and winter. For the winter months these houses are provided with curtains made of straw mats which roll down on the outside, making the bee-houses wind and snow proof. There is very little packing done inside the bee-house, which is kept at an even temperature of about 50 deg.

"The principal hives in use are the Carniolan, measuring about 1,600 cubic inches, with movable frames. There are a few box hives. Many improved hives are used for experiments. These are the Vienna, Bohemian, all kinds of German, and a few American hives.

"The principal honey flowers are the red buckwheat, which gives nectar only in the morning; red, white, blue, and yellow clovers, basswood, dandelion, which gives only pollen; blueberries, wild and common chestnut, which produce very dark honey, and many others. A pure Carniolan colony with a young queen may harvest in a year from 200 to 300 lbs. of honey.

"The extracted honey is put into bottles, pails, and small barrels, and is sold at an average of 30 cents a pound. Some is sold in the combs, but the extracted honey brings a better

price, as is used a great deal in cooking. Since the outbreak of the war, I hear from home that honey sells for two dollars per pound. Clean wax is made into cakes selling at about 53 cents a pound, and is used in making candles for the churches. A colony of bees sells for about four dollars.

"The Carniolan bee is in colour silver or light grey. It is a little larger than the Italian, and is very gentle. Carniolan bees are very prolific, are good honey gatherers, and do not propolise as much as other bees. They cap their honey clean and white, and are good resisters against moths and disease.

"Carniola has a Beekeepers' Association which meets yearly, and there are many subordinate Associations, one for each township, which meet every Saturday. There are about 900 members in the head Association. All the advertising matter is published in their monthly magazine, 'The Carniola Beekeeper,'' the Editor of which is Francis Rojina, my father. The estimated number of colonies in Carniola for the year 1910 was over 53,000; in all Austria over 2,000,000, with a product of more than 9,000,000 dollars.

"From earliest boyhood I watched and helped my father with his apiary of 500 colonies, and he took me on many of his lecture trips and to the National Bee Association meetings. The happiest days were those with father on his trips into the deep woods on the mountain sides, where he visited and bought the purest Carniolan bees. The best queens were carried home in small cages that were strapped to our backs.

"To me the Carniolan bees are the best. The only fault the American beekeepers have to find with them is their swarming, and this is caused by using too small hives. As soon as they are transferred to hives that can be enlarged, giving the queen room to satisfy her breeding capacity, she loses her inclination for swarming without losing her prolificness."

Referring to Mr. Rojina's statement that Jansa discovered that the "drone was the male bee, &c.," the Editor of the "American Bee Journal" says:—"Mr. Langstroth himself reported the fact that Jansa discovered that young queens leave their hives in search of drones long before Huber's investigations. This is mentioned on page 57 of our 'Revised Langstroth.' So we gladly insert and report that statement which he makes that Anton Jansa is called the first great beekeeper and Dzierzon only the second by those who have been acquainted with the facts. This does not detract from the fame of Dzierzon, for his discoveries were original, and it was through him that the facts became well known to the mass of beekeepers. How few there are who can really lay claim to an original discovery may be realised from this occurrence."
—"British Bee Journal."

[Have any of our readers had any experience with this strain of bees? If so, we should be glad of an article on them, and if a Carniolan queen is obtainable in New Zealand, the Editor would be willing to buy and place her in a 12-frame hive to see how she shapes.—Editor.]

Mouse Guards for Hives.—To make these take ⅝-inch bird-netting and pull it until the mesh is narrowed to ¼ or ⅜. Cut it into strips and tack over the entrances. This guard is most efficient and durable.

MY EXPERIENCES IN BEE-KEEPING.

By R. H. NELSON.

In writing this short series of articles, my only desire is that some of our younger generation of bee-farmers may profit by the mistakes I made in my efforts to master some of the problems in bee culture. The whole shall be a plain statement of facts as I found them, and the methods I adopted after sevral years of bee-farming.

I shall begin by giving a brief outline of how I landed in this Dominion.

We were sitting on the verandah of the Hotel d'l Europe, Singapore. It was a blistering hot afternoon—hot even for Singapore, 60 miles north of the Equator. The sweet aroma of perspiring Chinese, jinrickshaw coolie and Durians floated up the dusty road leading down to Raffles Square. Amongst the party was an old Scotch marine engineer called Mac. Mac was fed up with the climate and everything else in the Straits Settlement. Mopping his forehead, he turned to me and said, "Look here, Nelson, pack up your gear and let us get out of this accursed hole; it's fit only for Chinamen and Kleings. Come along with me to 'God's Own Country.'"

Having never heard of such a place, I enquired from Mac what the latitude and longitude of it might be. Said Mac, "'God's Own Country,' my boy, is New Zealand."

I had come up from Batavia some little time previously with a very bad attack of Java malarial fever; in fact, it was a mystery how I lived, as I was nothing but skin and bones.—[Tough skin, Nelson!—Ed.]

This recalls a little incident that may be worth relating. When lying sweltering in the Singapore Hospital, there was a human derelict carried in one day. He had been a something or other in FitzGerald's Circus. He was laid in the cot next to mine. Some little time after he had settled down in bed he turned a fishy eye on me, and gazed with much interest. Suddenly a bright idea seemed to strike him, and, lifting himself up on a skinny elbow, he unburdened himself of the following:—

"I say, ole man, yer a bloomin' nugget."

Told him I was very glad indeed to hear it—"nuggets" weren't at all plentiful.

'Yairze," said he, "yer a bloomin' gol'mine. No, yer needn't look like that, I ain't dotty. Hurry up and get well enough to get out of this, and we'll clear for Melbin; yairze, yer can leave it to me. Oncet we get down to Ostraliar we're right. Ole Jimmy Foster in Melbin will see us started. We'll do all the Gippsland townships, cross the border, at Albury, and do New South Wales. Yairze," and with a dramatic wave of the hand, "we'll go on through Queensland. Don't put on any beef," he added plaintively.

I assured him that the only thing I had a possible chance of putting on was a shroud.

"There is a tide in the affairs of men when, taken at its flood," &c.

Great Scot! to be carted around for exhibition purposes. I can hear the leather-lunged showman now:—"Now then,

ladies and gentlemen, walk up and view the honly g-r-e-a-t and living skellington. Keptchured in the wild and virgin jungles of the Island of Sumatra, and brought to this country at great expense by our management! The p-r-i-c-e, &c., &c."

See what I missed!

Three years after I was standing at the top of the Minories Aldgate, London. On a hoarding on the opposite side of the thoroughfare was an advt. list of several steamship lines. Like a flash old Mac's words came back to me. I was a bird of passage in those days, so I thought I might as well give New Zealand a look up, as it were, and if not up to expectations go on to Vancouver, and strike up to N.W. Canada. I landed in windy Wellington in September, 1903, and was not "shook" on it a bit, so headed for the Wairarapa. Looking round the Wairarapa Lake and surrounding country, I certainly thought it looked good. The exhilirating air and sense of feeling well after some of the pestilential holes I had lived in made me think old Mac might be right after all.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

A.B., Wainui.—Thanks for suggestions. We had the same in our mind, and are trying to get them carried out.

A. L. L., Awakeri.—If you have only about 1cwt. of wax to make up, it certainly would not pay you to invest in the plant. Later on we hope to give full instructions on the art of comb foundation making.

HONEY CROP PROSPECTS.

The Director of the Horticulture Division has received from the Apiary Instructors the following report concerning the honey crop prospects:—

Auckland.—The conditions of the honey crop remain unaltered since last month. Bulk honey continues to arrive, and is easily disposed of. Prices:—Bulk, 5d. to 6d. per lb.; 2-lb. tins, 15/- per dozen. No sections offering. Beeswax is in demand at 1/5 to 1/6 per lb., according to quality.—G. V. Westbrooke.

Wellington.—The past season's honey has been gathered, and most of it has been disposed of. The quality of the honey has generally been of a high standard, and the prices realised have been satisfactory to the producer. For beeswax prices have ranged from 1/4 to 1/7 per lb.—F. A. Jacobsen.

Christchurch.—There is very little change as regards the local trade. Prices remain steady for extracted honey. Sections are unprocurable, there being a scarcity during the last two seasons. A small quantity of honey is coming forward for the export trade.—L. Bowman.

Dunedin.—There is nothing fresh to report. Very little honey offering. Bulk is quoted at 5¾d. to 6d. Pat honey is coming forward steadily. Sections, none offering. Beeswax is scarce.—E. A. Earp.

Correspondence.

(TO THE EDITOR.)

Sir,—In giving a description of my melting machine in the June issue of the Journal, you wrongly described the machine, owing no doubt to a misunderstanding of Mr. Nelson's description. It should read thus:—

The machine consists of a vessel containing a coil of tubing 20 inches in diameter. The tubing rises to a cone shape in the centre, and is spaced one-eighth of an inch apart. This part of the machine, which is six inches deep, sits on another vessel 20 x 12 inches deep, which contains a movable screen near the top, and an outlet for the honey at the bottom. Steam is put through the coil from a boiler made of an oil drum, but this part of the appliance does not fit into the receptacle for honey and wax; on the contrary, it is located outside the honey house, and is connected up by means of a rubber tube through the wall. I have definitely decided to use block tin tubing for the coil, as it is not only cheaper, but much better suited for the purpose than anything else.

Since the Conference Mr. Nelson has put another ton of thick honey through the machine.

I have arranged for a supply of material, and will be able to quote a price for the machine in the near future. Thanking you for space,—I am, &c.,

H. BENTON.

Newstead, Featherston, 11/7/17.

P.S.—I will be pleased to answer any questions submitted to me by readers of the Journal.—H. B.

(TO THE EDITOR.)

Dear Sir,—A few queries for our readers:—When are we going to obtain from the scientific knowledge possessed by Mr. Barker those plain-spoken articles upon the Science (capital S, please, Mr. Editor) of queen-breeding which, we are all aware, he has it in him to give us? Will he? I for one devoutly hope so. Goodness knows that in our present-day ignorance of the science of heredity we badly need them.

Who will join me in an absolutely untrodden field of scientific research that will do more to settle vexed questions in bee culture than anything yet accomplished, and add to the value of our colonies double at least that which any research has yet resulted in since the world began? I want one or more (the more the better) to collaborate with me in fixing with certainty what are the heritable characteristics of our bees. Once we know this for an absolute fact, we can fire away upon the road toward ultimate perfection, at a rate and with such assurance as has never before been aspired to, to say naught about attainment.

So far as I can learn, nobody except Dr. Bonney, of Iowa (and he has apparently dropped the matter), has given this subject much or any solid attention, probably because it calls for the persistent application of those whom Nature has endowed with a strong bump of stick-at-it-iveness, and such men are few.

In further explanation, let me mention that we are fairly sure that colour in bees is an heritable characteristic, but is length of tongue, and is strength of wing, and are many other things that at present we think, and only think, we know, yet about which we have nothing at all upon which to base our belief as an absolute fact?

I have recently been in correspondence with Professor Castles, author of "Heredity," and from him have learned a fact that, to me, a beekeeper, nearly proves that once and again we have stumbled upon and lost most valuable acquisitions in our queen bees, acquisitions which would completely revolutionise all our methods of breeding, and, indeed, breeding itself. It is all but actually proved for me that that occasion when an American beekeeper had his queens fertilised in a super placed above the brood chamber while he wheeled them from one place to another in a barrow, and which mating could not have been doubted, but which the same beekeeper failed to repeat, upon again trying the empty super and wheeling plan, was in reality one of those rare occurrences of a sport (or a mutation) in bee inheritance that if only it had been taken advantage of might (mind, I do not dogmatically say "would!") have revolutionised all our ideas of queen-breeding. Mark you, just now we rear queens, which is an entirely different thing to breeding them. See!

Now, the qualifications necessary in my desired collaborateurs are:—First a love for research work, and, almost as important, a willingness to study, and study well, whatever literary matter may be necessary for his successful prosecution of the work undertaken. He (or she) must also possess a methodical temperament. Carelessness in recording what may appear unimportant items is fatal to this job. The student must be prepared to spend a few shillings on books, should know something of microscope work, and possess access to one of high powers of magnification. If he has a working knowledge of Latin, so much the better, although lack of such knowledge is not a bar to success.

The work may prove long and tedious, but it will gain for the successful ones a place upon the roll of those who have deserved the appellation—In Nature's Infinite Book of Secrecy, a Little Poem I Read—and the infinite satisfaction of knowing that they have added, of their own volition and application, further facts to the world's all too meagre gamut of knowledge; and, above all, to the knowledge so much desired by and so immensely benefiting those engaged in our beloved and honourable vocation.

Now, who will join? Don't all cry out at once! Apply by letter to Kihikihi.—I am, etc.,

H. BARTLETT BARTLETT-MILLER.

[Our correspondent is nothing if not ambitious, and we hope he will get a large number of collaborateurs. That instance of mating whilst the hive was being wheeled about from one place to another—we don't quite see where the matter of great moment comes in, unless the mating took place within the hive, and if our friend is going to try the experiment, there is some interesting work for one of the collaborateurs, pushing a barrow with a hive of bees on. (He will want a lighter barrow than ours!) It seems to us practically

impossible to go into the question of heredity in bees thoroughly, owing to the lack of control over the mating. In breeding dairy cows, most men pay more for their bulls, and study their records pretty thoroughly to ensure a good milking strain in the progeny; therefore, if the male parent means so much in breeding dairy cows, we think in breeding bees it must be the same. You may take infinite care with your queens, and get a certain amount of satisfaction with your research work, but you have no guarantee that you personally are in any way responsible. That is brought out very clearly in breeding your own queens: all the eggs are from the best queen, only the best cells are used, these hatch, and the queens take their flight, return, and start laying; one turns out one of the best, and another one of the worst. Our opinion as to the cause of this is the poor or good drone the queen chanced to meet. And it must be the same with research work: the mating must be natural, with all its uncertainties, consequently the results are not certain. "Gleanings" experiment with mating inside the large greenhouse will be the most convincing on the question of control over mating, and we are sure all beekeepers are awaiting the result with great interest.—Ed.]

(TO THE EDITOR.)

A correspondent writes:—"I believe beekeepers will find that the good parts of discarded horse and cow covers will make better mats than sacking; the bees will not gnaw the canvas—it is too hard for them to get a start on. Of course, wooden mats are better, but it is not every one that can afford them."

We are not quite sure that wood mats are the better, at least not where there is much propolis about. The bees glue them all round, and, judging from what we saw at Tauranga Horticultural Farm (where an apiary is being built up), when one wanted to get at the frames, we think wooden mats just about the limit for getting a hive into a stinging state. The Editor does not use mats of any description, so does not pose as an authority on the question, and we sometimes wonder if mats are necessary in the warmer parts of the Dominion. Providing that your cover fits right down to a bee space above the frames and is leak-proof, we think you have given the bees an artificial home as near like their natural one—i.e., a hollow in a tree—as possible.—Ed.

THE SELLING END OF THE HONEY BUSINESS.

By FRED. C. BAINES.

(Concluded.)

Seeing, then, the export market has been so benefited by organisation, let us see how the local market is faring, and the first question we will ask is, Has the price of honey increased since the H.P.A. started operations? And the answer is emphatically, Yes!

Most of the trade was done in bulk and 2-lb. tins, and the price for the former ranged from 3d. to 4d. per lb., according to the supply, the latter from 8/- to 10/- per dozen, with

few exceptions. The prices I obtained were as follows:—1-lb. jars, 6/9 per dozen; 2-lb., 11/6; 2-lb. tins, 9/- per dozen f.o.r. delivery station, less 2½ per cent. cash discount. These prices were obtained only after submitting samples to all the merchants, and were, I know, the average price ruling at that time. Now, what has the H.P.A. done on this market? Here are the prices obtained year by year:—

First year, 10/- per dozen 2-lb. tins net.
Second year, 10/9 per dozen 2-lb. tins, less 2½ per cent.
Third year, 12/6 per dozen 2-lb. tins, less 10 per cent. and 2½ per cent.
Fourth year, 15/6 per dozen 2-lb. tins, less 10 per cent. and 2½ per cent.
With the absolute certainty of a further increase next year.

Is there any beekeeper who can show me a similar advance in his dealings with the merchants previous to the existence of the H.P.A? If so, send it along, and so convince me that I am trying to inflate a worthless institution, and I will publish the facts. If figures prove anything at all, these prove beyond question that the H.P.A. is the finest thing ever happened for the industry. Mark them well!

1913/4—Export price, 32/6 to 45/- London. Local price, 2-lb. tins, 10/- net.
1914/5—Export price, 4d. per lb. f.o.b. N.Z. Local price, 2-lb. tins, 10/6 net.
1915/6—Export price, 4 1-7d. per lb. f.o.b. N.Z. Local price, 2-lb. tins, 10/11 net.
1916/7—Export price, 4 1-8d. and 4¾d. f.o.b. N.Z. Local price, 2-lb. tins, 13/5 net.

Even admitting that N.Z. honey reached as high as 48/- London, it cost from £8 to £10 to clear freight, insurance, and charges, we are doing considerably better, seeing that we have a bonus as well.

Seeing, then, that the H.P.A. is doing such good work, is it not extraordinary that it doesn't get the support of every beekeeper in the land. Of course, I know the chief reason is that prices are being offered above that which the H.P.A. can possibly give; but it wouldn't matter what the H.P.A. offered, the merchants would go one better.

For example: A firm in Auckland which, previous to the existence of the H.P.A. would offer 9/- per dozen for 2-lb. tins f.o.b. Auckland, and get as much as they wanted, found the beekeepers were not offering their honey, and learned they had joined some Association. They immediately started advertising for honey in both dailies, Weekly News, and provincial papers, offering to supply, tins, jars and cases free to your station; all you have to do is to fill them with honey, pay freight the return journey, and the price you will be paid is from 5½d. per lb. upwards, in some cases considerably more. Now, does it not occur to you that if honey four years ago was worth to them only about 3½d. per lb., there must be some reason for this extraordinary advance in price. There has been no one advertising the virtues of eating honey, no great medical man has boosted it as a food, that people should be rushing to buy. Do you think the merchants have suddenly opened their hearts (and purses) to you out of any good feeling for the beekeepers? Not a bit of it! They know the

Association has steadily increased the price for four years, and if it gets the support of all the beekeepers it will go on increasing, **and the merchants are out to stop it!** Therefore, no matter what the Association offer, they will go one beter, in hopes that they will be able to tempt a sufficient number of men to keep out of it, and those that are in it to be disloyal, until they have achieved their object, and after that—the deluge! It requires only about twenty to thirty men who have an output of five tons each to do it, and if you assist the merchants to smash up the H.P.A., just bear in mind that you are involved in the business, and yours and theirs, both local and export markets have the bottoms knocked right out of them for good and all time. I was offered £50 more for my crop this season than I got through the H.P.A. (and I'm not over-burdened with cash); but what is the use of gaining £50 extra for one or two years, and losing the same amount for all time?

Now, regarding the shareholders—are they loyal? I am very pleased to say they are for the most part, in spite of it meaning a considerable monetary loss to them. There are some, however, who joined the Association that prices be increased, and although they would get considerably more by supplying the Association than they were getting previous to the existence of the H.P.A., they fell to the temptation of the merchants' increased price. I am not going to deny that it is very hard to turn away £20 or more; nevertheless, considering that the future will more than make up that amount, it is really wiser to refuse it. There is another class of shareholder who supplies, we will say, a tenth of his crop, and the rest he puts up in packages similar to that of the H.P.A. and undersells. Poor sort of helping to build, that—put one brick up and pull nine down. There are some shareholders who put up for the local market in a form the H.P.A. does not, who have signified their willingness to cease immediately the Association finds itself able to do it, which is quite honourable and business-like, and the offer is one to be admired.

I am quite ready to admit that mistakes have been made. They are bound to occur, particularly when you have to build up an organisation that differs so much from any industry that is already organised. But in spite of them I and other shareholders are getting higher prices than we should have done had the H.P.A. not come into being therefore, I think we ought not to be too critical over a mistake or two made.

In every periodical you read connected with beekeeping, you will find the cry for organisation to control the selling end of the honey business. We have it, proved to be a success. I leave it to you to decide whether it shall live and continue to do useful and profitable work by you giving it every ounce of support you can, or whether you will wreck it by adding weight to the opposing forces, who are not out for your good but your undoing. There are other industries which would give almost anything to have an organisation similar to ours, and if you will only support it, you will find they will be coming to us for advice, that they too may work on similar lines. I hope before many years we shall have the same system here as in England, whereby our honey shall be sold, not to the merchant that he may get 10 per cent. for simply distributing it, but that we shall do it ourselves, and that most perfect of

all systems of marketing be ours—"Direct from the producers to the retailers, and the whole of the profit to the producers."

In closing, I would just like to urge upon you the seriousness of the situation. Think of the alternative to the present splendid outlook, and I feel sure you will see that the right course is for you to become a member of that Company who stands for Organisation.

The Beekeepers' Exchange.

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